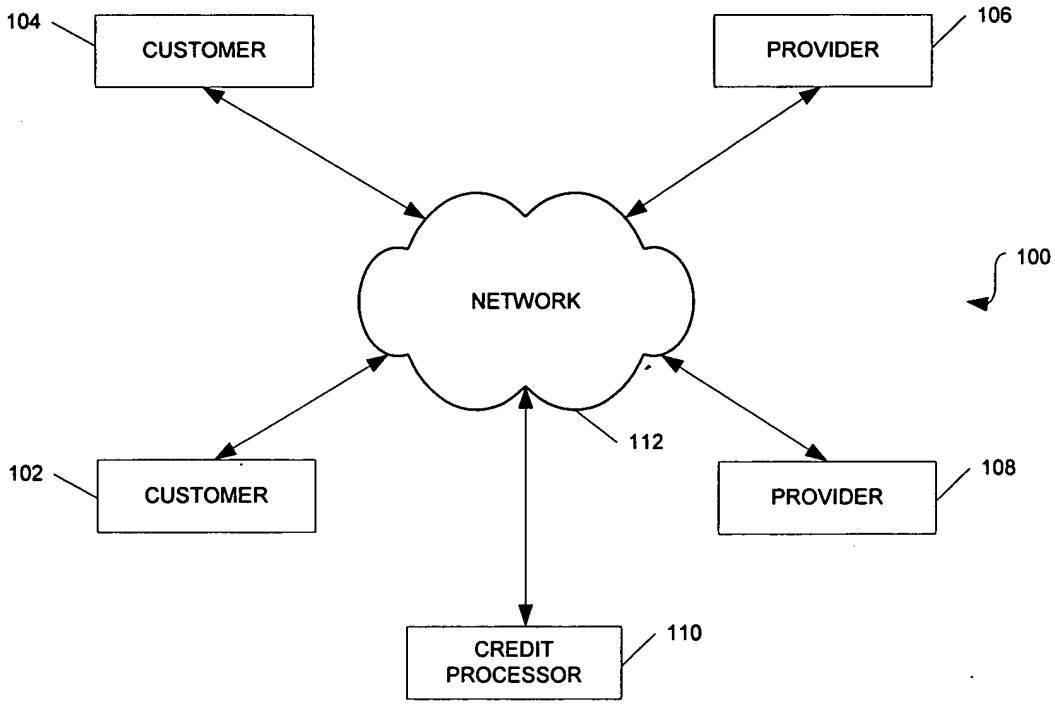
104
CUSTOMER
106
PROVIDER
NETWORK
100
112
102
CUSTOMER
108
PROVIDER
CREDIT PROCESSOR
110

Fig. 1

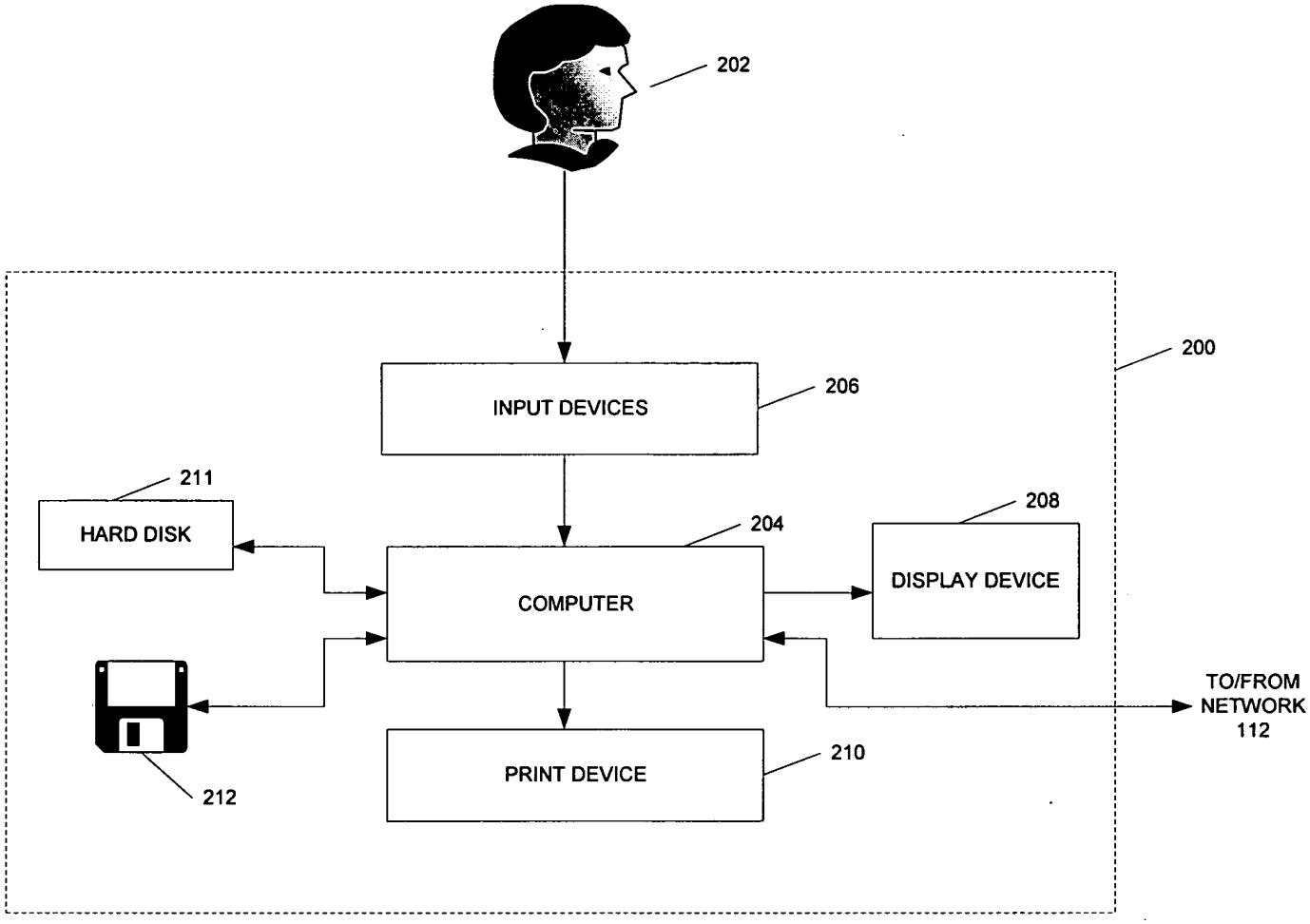
202
200
INPUT DEVICES
206
211
HARD DISK
208
204
DISPLAY DEVICE
COMPUTER
TO/FROM
NETWORK
112
212
PRINT DEVICE
210

Fig. 2

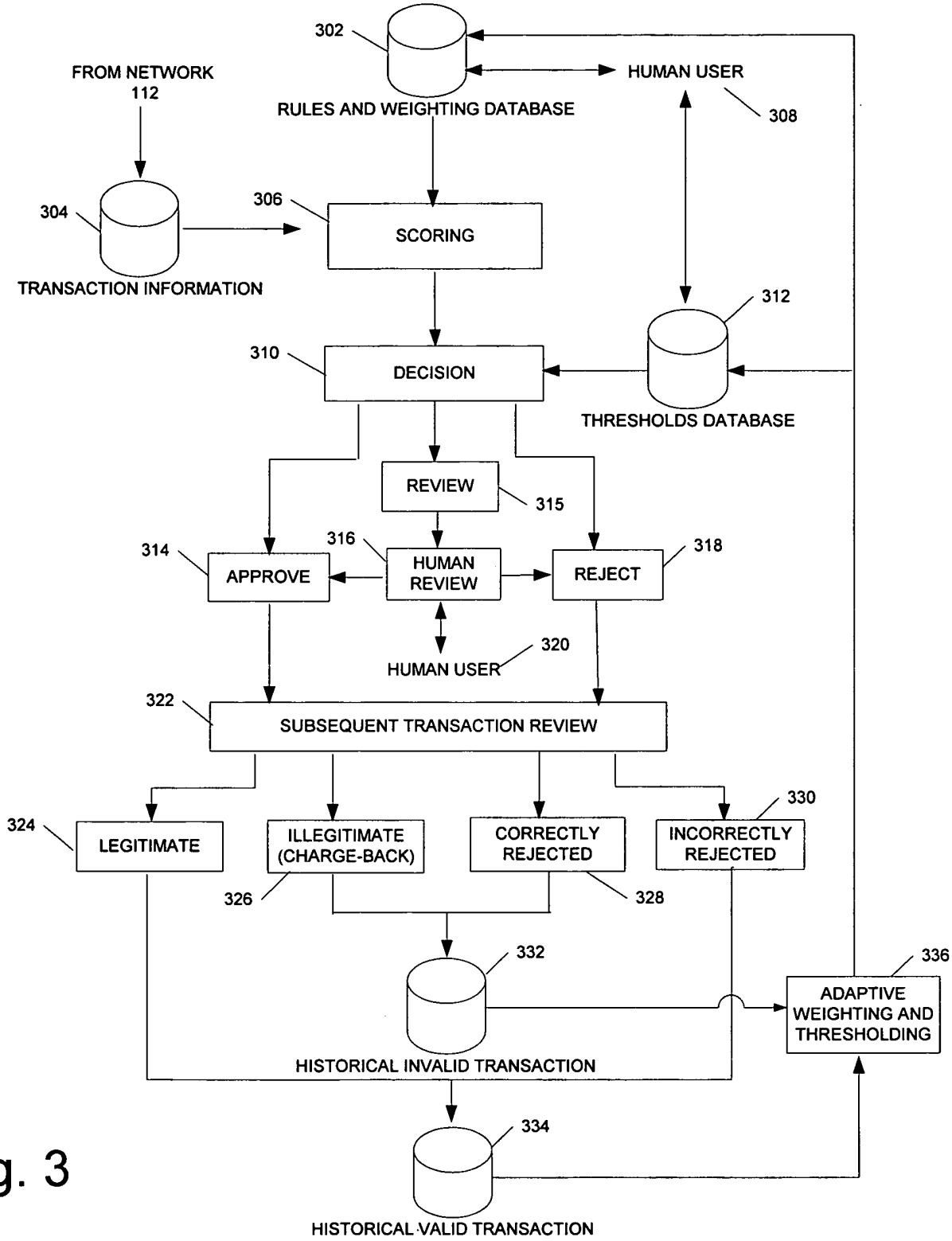
302
RULES AND WEIGHTING DATABASE
HUMAN USER
308
FROM NETWORK
112
304
TRANSACTION INFORMATION
306
SCORING
312
THRESHOLDS DATABASE
310
DECISION
REVIEW
315
314
APPROVE
316
HUMAN REVIEW
318
REJECT
HUMAN USER
320
322
SUBSEQUENT TRANSACTION REVIEW
324
LEGITIMATE
ILLEGITIMATE (CHARGE-BACK)
CORRECTLY REJECTED
INCORRECTLY REJECTED
330
326
328
332
HISTORICAL INVALID TRANSACTION
336
ADAPTIVE WEIGHTING AND THRESHOLDING
334
HISTORICAL VALID TRANSACTION

Fig. 3

RULE NUMBER	EXPRESSION	WEIGHT
1	If CREDIT_CARD_BILLING_ADDRESS <> PRODUCT_SHIPPING_ADDRESS THEN BAD	1
2	If TODAY'S_DATE > CREDIT_CARD_EXPIRATION_DATE THEN BAD	6
. . .	. . .	. . .
12	If CREDIT_CARD_NUMBER IN (list of bad card numbers) THEN BAD	4
13	If CUSTOMER_IP_ADDRESS IN (list of good IP addresses) THEN GOOD	-2
14	If CREDIT_CARD_NUMBER IN (list of good card numbers) THEN GOOD	-4
. . .	. . .	. . .

FIG. 4

RULE NUMBER	NUMBER OF VALID TRANSACTIONS	NUMBER OF INVALID TRANSACTIONS
1	205	120
2	20	411
. . .		
12	30	300
13	241	123
14	320	45
. . .		

FIG. 5

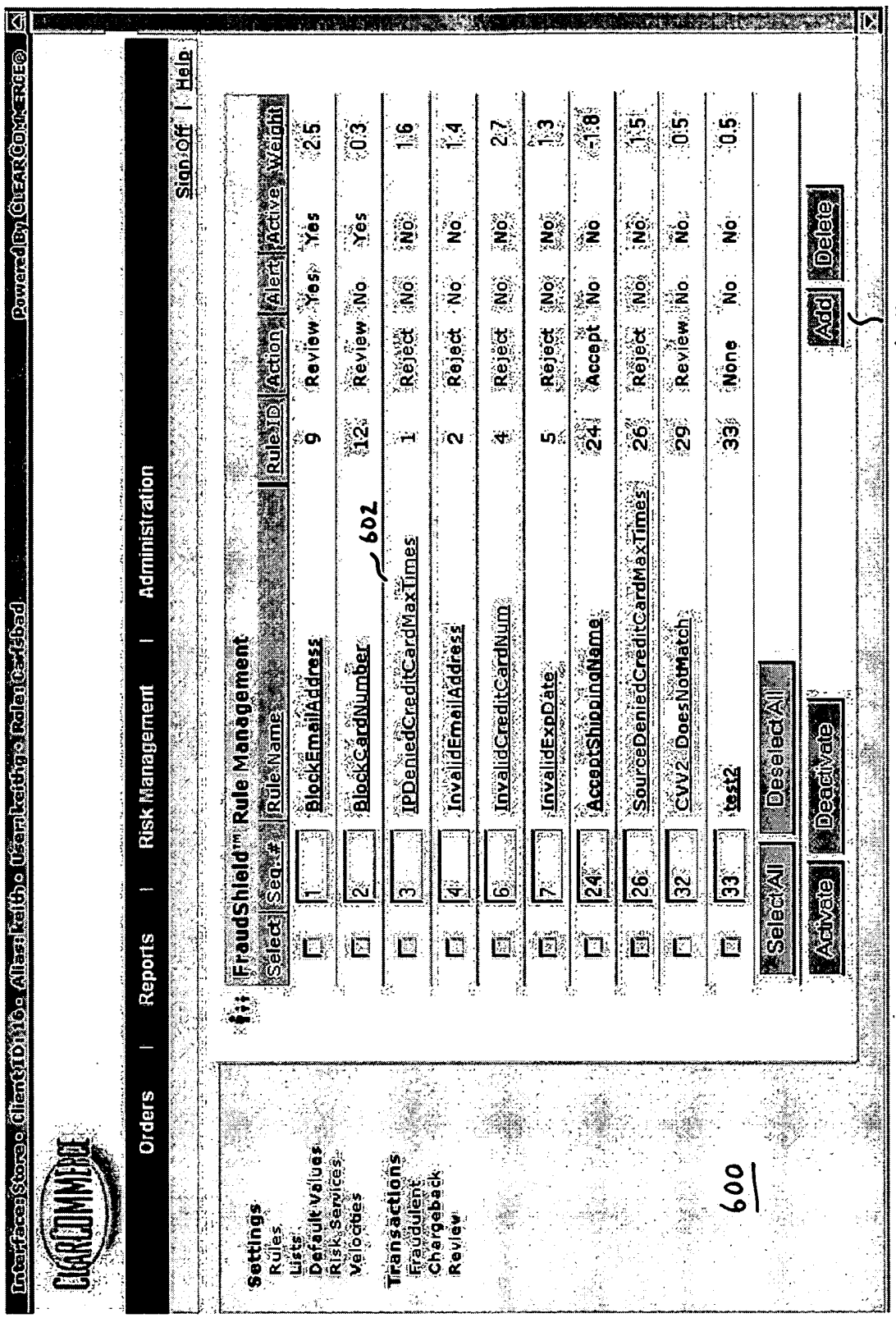
Interface:Store:0 ClientID:116:0 Alias:keithg:0 User:keithg:0 Role:Cardfraud
Powered By CLEARCOMMERCE®
CARDINAL MERCE
Orders | Reports | Risk Management | Administration
Sign Off | Help
Settings
Rules
Lists
Default Values
Risk Services
Velocities
Transactions
Fraudulent
Chargeback
Review
FraudShield™ Rule Management
Select | Seq.# | RuleName | RuleID | Action | Alert | Active | Weight
1 BlockEmailAddress 9 Review Yes Yes 2.5
2 BlockCardNumber 12 Review No Yes 0.3
3 IPDeniedCreditCardMaxTimes 1 Reject No No 1.6
4 InvalidEmailAddress 2 Reject No No 1.4
6 InvalidCreditCardNum 4 Reject No No 2.7
7 InvalidExpDate 5 Reject No No 1.3
24 AcceptShippingName 24 Accept No No -1.8
26 SourceDeniedCreditCardMaxTimes 26 Reject No No 1.5
32 CVV2 DoesNotMatch 29 Review No No 0.5
33 test2 33 None No No 0.5
Select All
Deselect All
Activate
Deactivate
Add
Delete
602
600
604

Fig. 6a

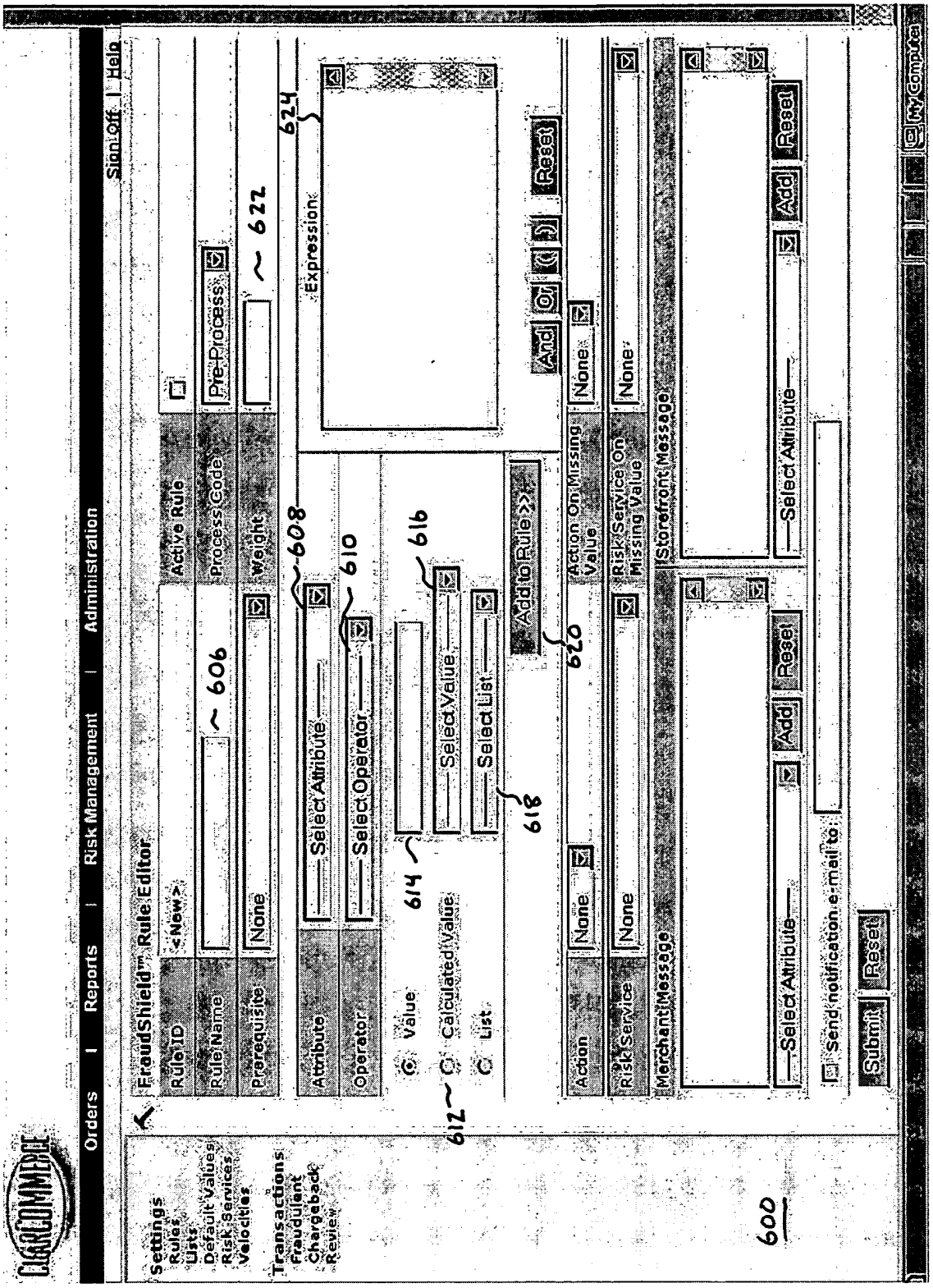
CLEARCOMMERCE
Orders | Reports | Risk Management | Administration
Sign Off | Help
Settings
Rules
Lists
Default Values
Risk Services
Velocities
Transactions
Fraudulent
Chargeback
Review
FraudShield™ Rule Editor
Rule ID
<New>
Active Rule
Rule Name
Process Code
Pre-Process
Prerequisite
None
Weight
Attribute
Select Attribute
Operator
Select Operator
Value
Calculated Value
List
Select Value
Select List
Add to Rule >>
Expression:
And
Or
Reset
Action
None
Action On Missing Value
None
Risk Service
None
Risk Service On Missing Value
None
Merchant Message
Storefront Message
Select Attribute
Add
Reset
Select Attribute
Add
Reset
Send notification e-mail to:
Submit
Reset
My Computer
600
606
608
610
612
614
616
618
620
622
624

Fig. 6b

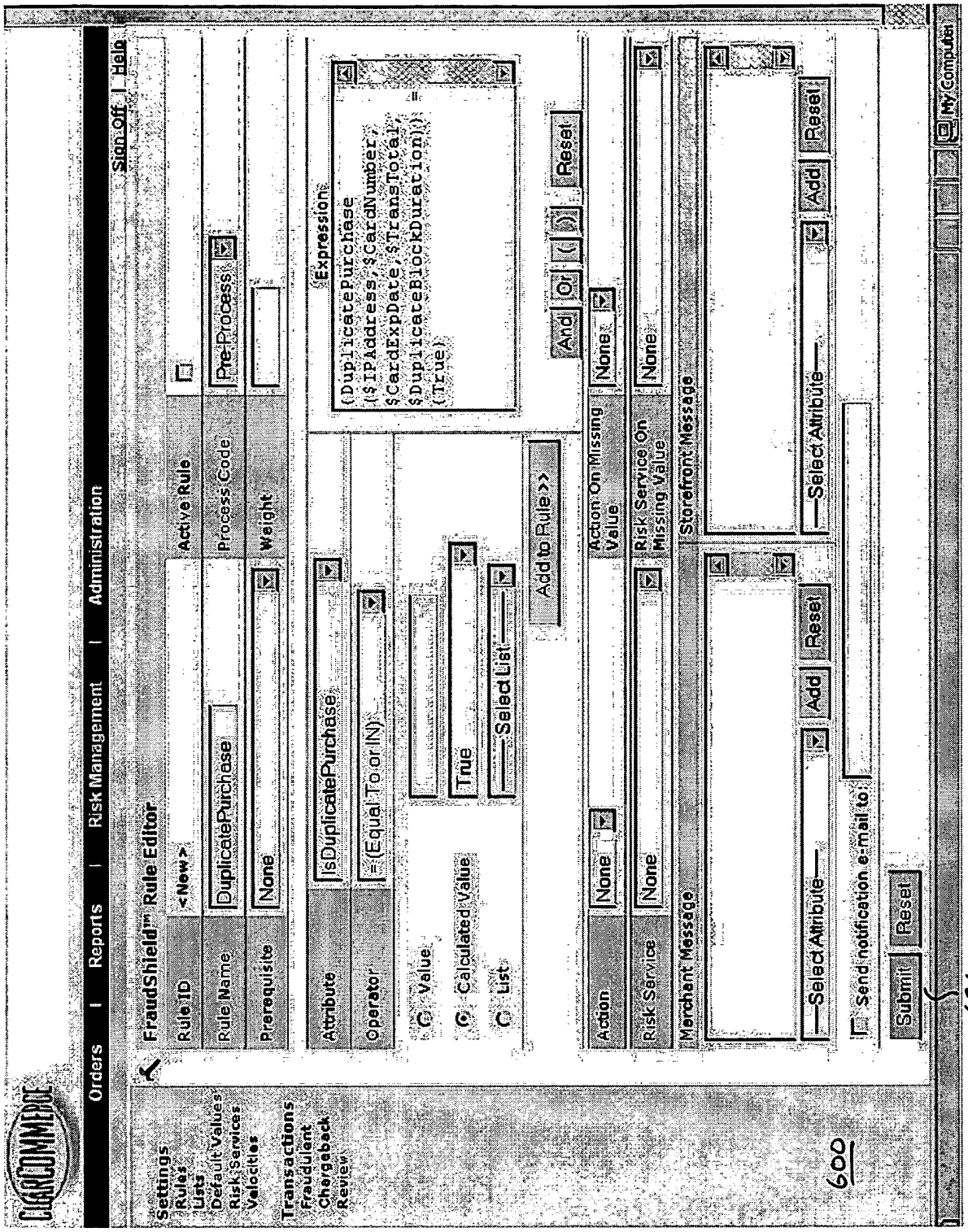
CARDCOMMERCE
Orders | Reports | Risk Management | Administration
Sign Off | Help
Settings
Rules
Lists
Default Values
Risk Services
Velocities
Transactions
Fraudulent
Chargeback
Review
FraudShield™ Rule Editor
Rule ID
<New>
Active Rule
Rule Name
DuplicatePurchase
Process Code
Pre-Process
Prerequisite
None
Weight
Attribute
isDuplicatePurchase
Operator
=(Equal To or IN)
Value
Calculated Value
True
List
Select List
Add to Rule >>
Expression
(DuplicatePurchase
($IPAddress,$CardNumber,
$CardExpDate,$TransTotal,
$DuplicateBlockDuration))
(True)
And
Or
(
)
Reset
Action
None
Action On Missing Value
None
Risk Service
None
Risk Service On Missing Value
None
Merchant Message
Storefront Message
Select Attribute
Add
Reset
Select Attribute
Add
Reset
Send notification e-mail to
Submit
Reset
My Computer
600
626

Fig. 6c

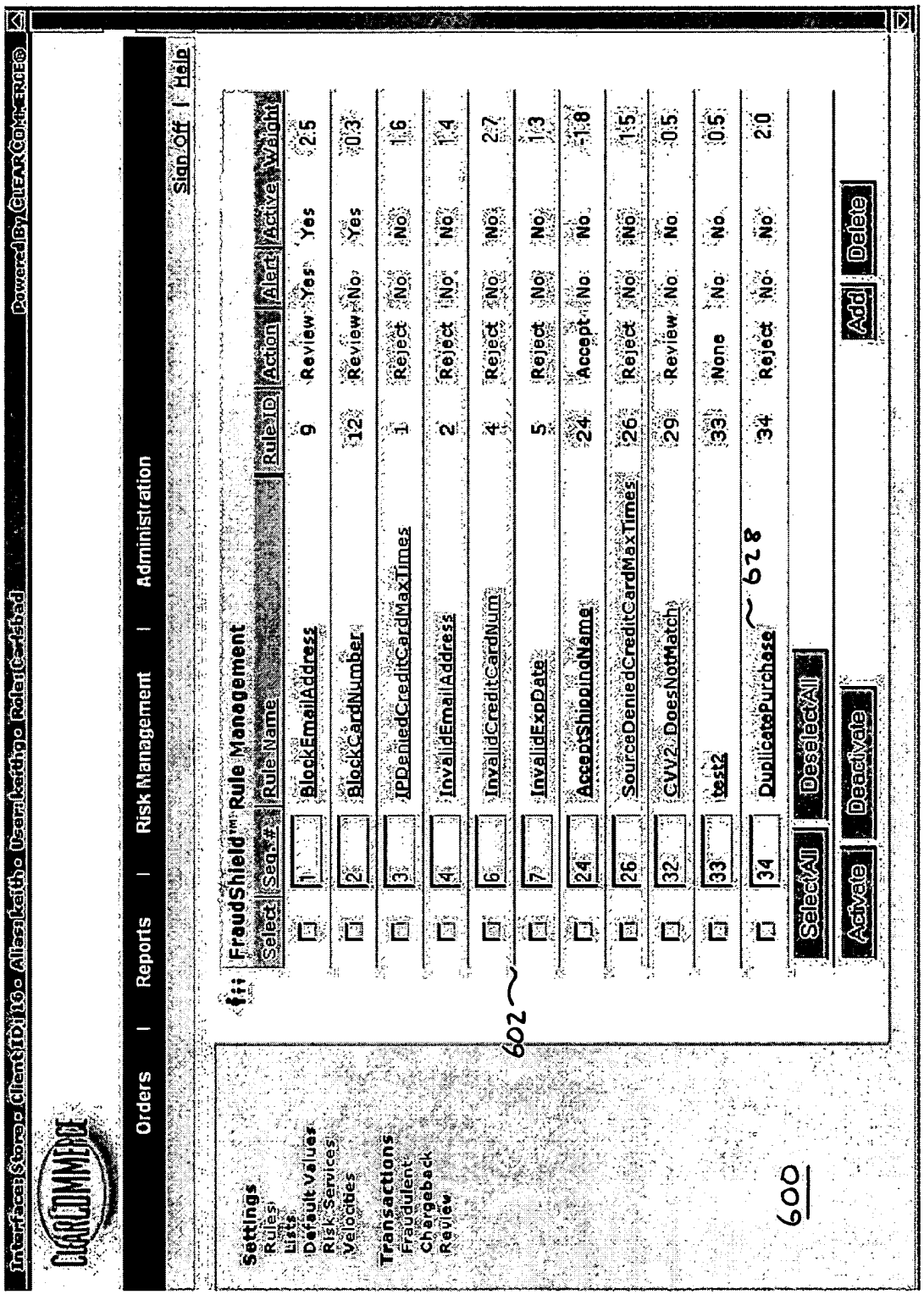
Interface: Store: ClientID: 16: Alias: kathy: Username: kathy: Role: Carlsbad
Powered By CLEAR COMMERCE
CLEARCOMMERCE
Orders | Reports | Risk Management | Administration
Sign Off | Help
Settings
Rules
Lists
Default Values
Risk Services
Velocities
Transactions
Fraudulent
Chargeback
Review
FraudShield™ Rule Management
Select | Seq. # | Rule Name | Rule ID | Action | Alert | Active | Weight
1 | BlockEmailAddress | 9 | Review | Yes | Yes | 2.5
2 | BlockCardNumber | 12 | Review | No | Yes | 0.3
3 | IPDeniedCreditCardMaxTimes | 1 | Reject | No | No | 1.6
4 | InvalidEmailAddress | 2 | Reject | No | No | 1.4
6 | InvalidCreditCardNum | 4 | Reject | No | No | 2.7
7 | InvalidExpDate | 5 | Reject | No | No | 1.3
24 | AcceptShippingName | 24 | Accept | No | No | -1.8
26 | SourceDeniedCreditCardMaxTimes | 26 | Reject | No | No | 1.5
32 | CVV2_DoesNotMatch | 29 | Review | No | No | 0.5
33 | test2 | 33 | None | No | No | 0.5
34 | DuplicatePurchase | 34 | Reject | No | No | 2.0
Select All | Deselect All
Activate | Deactivate | Add | Delete
602
628
600

Fig. 6d